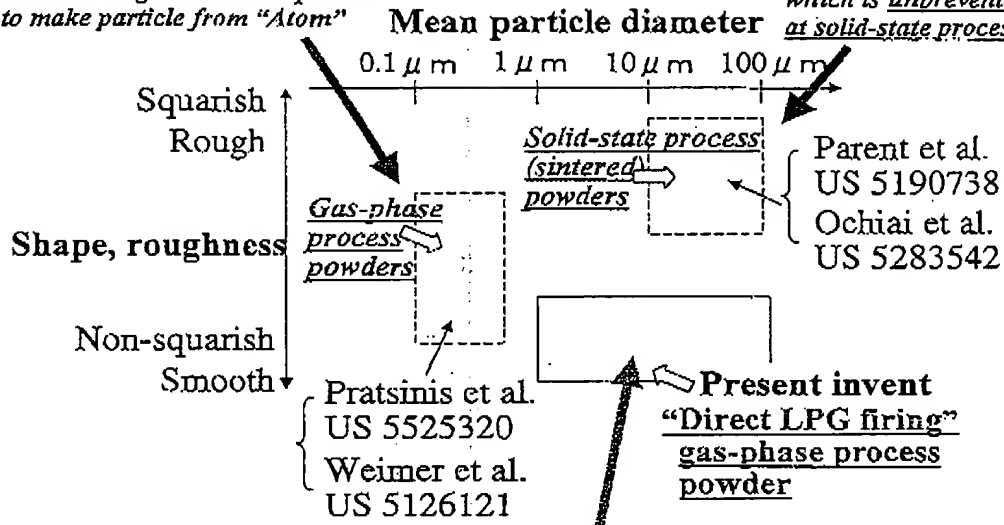




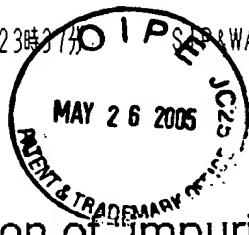
Gas-phase unable larger than 1 μ m
because long term is indispensable
to make particle from "Atom"

Hexagonal crystal structure
of AlN makes "Squarish",
which is unpreventable
at solid-state process



High efficiency in direct-firing facilitates a rapid non-batch synthesis
even if difficult-to-synthesize material (such as hexagonal system)
and/or large-size powder (e.g. above micron) are present.

Fig. 1

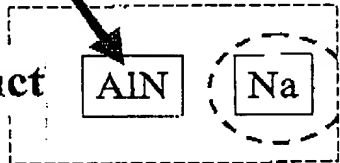


definition of "impurities"

Non-impurities in the crystal structure

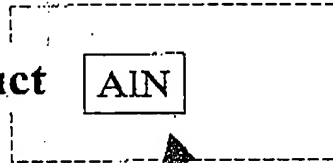
Parent et al.
US 5190738

Product



*But,
product powder includes
non-AlN element
as "impurity"*

Present invent Product



**Non-impurities in the crystal structure
&
non-AlN element in the whole product powder**

Fig. 2



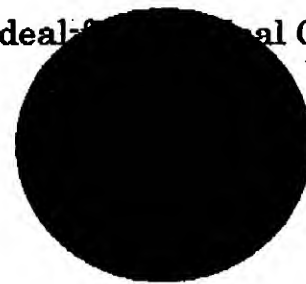
long-axis diameter of product particle
short-axis diameter of product particle

perimeter of product particle

projected area of product particle



Ideal (Ideal Circle)



US 5096860 (quoted by Examiner)



Commercially-available Powder

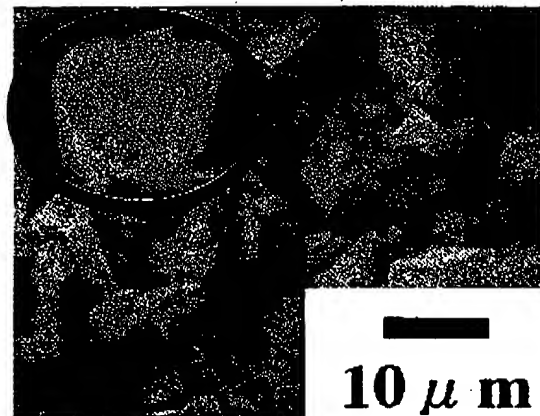


Fig. 3